



NORTH CAROLINA
MUSEUM OF HISTORY

History Happens Here

Colonial Life History Mystery

Distance Learning Program

Teacher Supplement

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Program Overview

Colonial Life History Mystery focuses on ways that historians unravel mysteries from the past. Through interactive discussions and hands-on activities, students will become historians as they use observations, hypothesis, and analysis to identify artifacts from the Civil War time period.

The **Preprogram Activities** include a discussion sheet and a work sheet. The **Postprogram Activities** include several articles from *Tar Heel Junior Historian* magazine and suggested activities. These materials will help students focus more on the Civil War in North Carolina and will also encourage them to think about how historians and scientists use observation, analysis, and hypothesis of artifacts to figure out what happened in the past.

Colonial Resources from the North Carolina Museum of History

Colonial North Carolina History-in-a-Box

Geography played a major role in the settlement patterns of colonial North Carolina. Explore colonial family life and learn about the cultures of four groups that settled in the state's three regions. Examine reproduction artifacts, play with toys, and listen to period music. Learn about clothing, housing, cooking, education, and trade. The kit is available for loan for three weeks at no charge (you pay return UPS shipping). To order, call 919-807-7984 or go to <http://ncmuseumofhistory.org/edu/HistoryBox.html> for an order form.

Preprogram Activities: Preprogram Discussion Sheet

Have the students sit around you on the floor or at their desks. Read aloud to them, pausing to ask and answer questions. This discussion sheet is a framework for you to build upon. Feel free to use your own examples that you know will appeal to your students. Key vocabulary is underlined.
Time required: 15 minutes

Have you ever wondered how we know about the way people lived long ago? How do teachers and parents know about life in the “old” days?

Historians, archaeologists, and anthropologists study objects made and used by people who lived long ago to learn about the past. They call the objects artifacts. An artifact is any object made or used by a human. It can be pottery, a diary, a plant, or even old garbage!

Historians study artifacts to learn about what happened long ago. Like detectives, they analyze artifacts to learn about what people did, where they went, and what they owned. Historians also use many primary documents to learn about the past. Some common primary documents are journals, inventories, photographs, and diaries.

Many people kept diaries long ago—even young people like you! Do you keep a diary? What things do you (would you) write about?

What could a historian learn by reading your diary?

Did you know that even garbage gives us clues about the past? Some archaeologists dig up garbage from long ago to learn about how people lived. They find this garbage in deep holes where people threw away their old clothing, bones from food, and broken things like plates and bottles. The holes where they find this old garbage are called trash pits, or middens. A modern midden is a landfill. As history detectives, archaeologists analyze discarded objects to learn about the people who made or used them. In the future, archaeologists may dig up our landfills to learn more about how we lived.

What do you think they will find?

Anthropologists study objects, environments, and behaviors to learn about traditions and cultures. They analyze these clues to learn how people lived together in families and communities. Anthropologists also study what people believed in and what kinds of things were important to them.

All of these clues—letters, diaries, objects, environments, and behaviors—tell us about how people lived long ago. Some clues are easier to understand than others, and sometimes even historians, archaeologists, and anthropologists get confused. Still, being a history detective can be great fun!

Preprogram Activities: Be an Anthropologist from the Future!

Time required: 20 minutes

1. What would an anthropologist from the future learn about you by studying your room?

In the space below, make a list of things that can be found in your room.

2. Imagine that you are an anthropologist from the future who is trying to figure out what the lives of people are like now by studying your room.

How many people would you think live in this room? ____

What is your *evidence*, or what makes you think that?

3. What kinds of clothing does the person who lives in this room wear? What is your *evidence*, or what makes you think that?

4. What kinds of things does the person who lives in the room like? Name at least two things that the person probably likes. What is your *evidence*, or what makes you think that?

5. What else can you tell about the person who lives in this room? Be sure to give your *evidence*.

Postprogram Activities

These activities include several articles from *Tar Heel Junior Historian* magazine. If you would like to receive free issues of future magazines, form a Tar Heel Junior Historian Association club in your school. To receive a membership application, please call Jessica Pratt at 919-807-7985, e-mail thjaclubs@ncdcr.gov, or visit the museum's website at <http://www.ncmuseumofhistory.org/thja/index.html>.

1. Continue to study colonial medical equipment by sharing the photographs from the article "The Illness or the Cure—Which Was Worse?" ([pages 7–11](#)) from the spring 1997 issue of *Tar Heel Junior Historian* magazine. Have students form hypotheses about how these tools were used as a lead-in to a discussion on how medical science has changed over time.
2. Study mystery artifacts related to sewing by sharing the photographs from the article "Ouch! Prick Your Finger!" ([pages 12–15](#)) from the spring 1988 issue of *Tar Heel Junior Historian* magazine. Have students form hypotheses about how these tools were used, and then discuss how sewing and clothes making have changed over time. *Note: the answers to the mystery artifacts are printed upside down on page 15.*
3. Guide students in making, ink, a sander, and a hornbook ([pages 16–17](#)). As an extra activity, have students write a paragraph comparing modern materials used in reading and writing to the materials used by children during colonial times.
4. Share the article "Museum Detectives Use Solid Evidence" ([pages 18–22](#)) from the spring 1992 issue of *Tar Heel Junior Historian* magazine. Guide students to explore their own material culture by bringing objects from home that tell about themselves, their families, or their culture. Have students work in teams to interpret what the objects suggest about the needs and values of the people who use them.
5. Share the article "Oral Historians Listen to Witnesses" ([pages 23–25](#)) from the spring 1992 issue of *Tar Heel Junior Historian* magazine. Have students develop questions and interview family members about the past. Your class may gather general oral history, or they may prefer to focus their investigation around specific questions. Some possibilities might be to examine what young people have done for fun, how the prices of things have changed over time, or how school experiences have changed.

June 1828
H. Hunter of Raleigh opens a public bathing room in his house, "where warm, tepid, or cold baths may be had every day throughout the warm season, Sundays excepted."

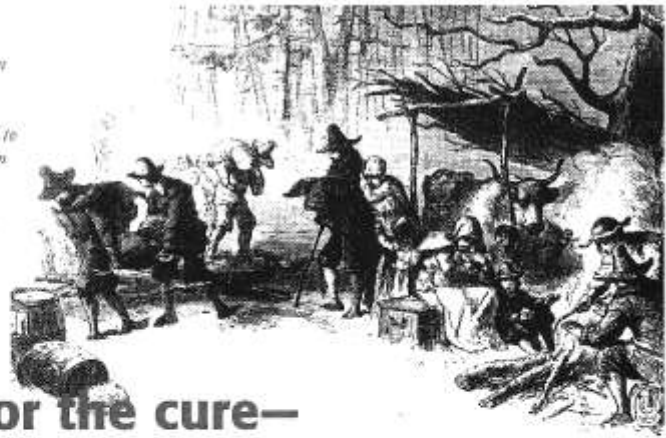
1830
Jamestown, in Guilford County, boasts of a cotton mill, a gun factory, three gristmills, and two medical schools. Drs. Madison Lindsay and Shebel Coffin teach popular healing practices and surgeries of the day.

1830s-1860s
Malaria is such a common and expected summer disease in the Coastal Plain that residents who can afford to, regularly spend from July until the first frost at health resorts in the Piedmont or the Mountains.

July 1841
Asa Gray, a botanist and professor at Harvard University, investigates the flora of the North Carolina mountains. More than 75 percent of all medicinal plants in the United States grow in this area.

1842
Georgia physician Crawford

Most of the people who crossed the ocean to settle in the New World were poor rural farmers or indentured servants from Europe. These people were not used to receiving much of their medical care from professional physicians, surgeons, or apothecaries, except as a last resort. Instead, they normally treated themselves or were treated by a family member, usually one of the women in the home, or by a trusted neighbor who was familiar with plant remedies and had a reputation for healing.



The illness or the cure— which was worse?

The health of European settlers in colonial North Carolina

by Michael R. Williams

Definitions

Definitions for color words are listed in the outer section of the magazine, between pages 16 and 17.

Apprentices learn a skilled trade while serving an apprenticeship, or while watching and helping a more experienced person, or tradesman, like a cooper or a wheelwright, for a period of time.

To have an excess amount of something is to have more than is usual or more than is acceptable.

One way that European men, women, and children could afford to cross the ocean to the New World was to sign an indenture, or a contract. This indenture promised that the signer, who became known as an indentured servant, would serve an "owner" who paid for the voyage. Indentured servants worked for that owner until they had repaid this debt. Indentured servants made up more than one-half of the Europeans who came to America during the colonial era.

When the first European explorers and colonists thought about coming to the place that was later named North Carolina, they faced many unknowns. What kinds of climate conditions and weather would they find? Would the soil and plants be similar to the soil and plants they were used to? What kinds of illnesses might exist in the new lands?

Most people in the 1500s and 1600s had no contact with medical professionals. They treated themselves when they could, or were

treated by a family member, usually one of the women in the home, or by a trusted neighbor. In serious cases, the ill may have been treated by a lay healer in the community. If these treatments failed to restore health, a professional physician, surgeon, or apothecary may have been considered as a last step.

Medical professionals in Europe

In general, three classes of medical professionals existed in Europe during this time. There, these classes were very strictly



Most early settlements in the land that became North Carolina were in or close to swampy areas along the coast or other waterways. Settlers relied on water for transportation. They also needed to be near supplies of water for drinking, cooking, and washing. Unfortunately, areas near water also had higher populations of mosquitoes and other insects that carried disease. Swampy areas, in addition, had poor drainage and did not carry wastes and wastewater away from drinking water.

separated, especially in cities and towns. The physician held the highest rank of these classes.

Physicians were usually graduates of a **university** medical school. They were taught to read and speak Latin and often Greek so they could study medical writings from throughout history. They were taught about the functions of the various body parts and organs (as much as was known at the time, anyway), symptoms of the common illnesses of the day, and the effects of drugs in use at the time.

In the next class was the surgeon, who was not as highly respected as the physician because surgeons were considered **tradesmen**, like silversmiths and cobblers. A man could become a surgeon by serving an **apprenticeship** with a practicing surgeon. When the experienced surgeon felt satisfied with his trainee's knowledge, usually after a period of five to seven years, the surgeon would give a certificate of proficiency. At that point, the trainee could call himself a surgeon and start his practice. Among his responsibilities would be performing major and complicated surgeries like amputations, trepanations, and couching cataracts.

The lowest-ranking class of medical professional in Europe was the apothecary—a person who raised or collected, prepared, and sold medicines. In addition, an apothecary could perform minor surgery like lancing boils and removing skin growths, stitching wounds, and removing teeth. The apothecary also learned his **trade** through an apprenticeship.

How European colonists lived

Most of the people crossing the ocean to settle in America were poor **rural** farmers or **indentured servants** who could not have afforded a medical professional. They were more used to self-treatments, traditional family remedies, and lay healers.

Weather and climate conditions in the New World were quite different than those the new immigrants from Europe had been used to. All colonists went through a period called "seasoning" as their bodies adjusted to different ranges of temperature and humidity, new housing and living conditions, strange foods, and even unfamiliar worries and work duties and different diseases.

Most early settlements were along the coast on or very near waterways, often in swampy areas. With the population of mosquitoes



European medicine in colonial times still relied heavily on the use of healing herbs like burdock. Unlike many plants, burdock grew both in Europe and in much of the New World. Burdock was used to treat stomach ailments, to wash skin sores, and to neutralize some poisons.

and other insects that carried disease, poor drainage that could not remove wastes quickly or thoroughly enough, and the general health practices of the day, it truly is a wonder that more colonists did not get sick and die.

European colonists did not bathe as frequently as we do today, and in fact, many men bragged of never bathing by choice in their lives! Few colonial homes had any kind of floor besides packed dirt. Women had no way to keep food clean and fresh. The most common meat was pork, which was preserved in salt.

The theory of the humors

The true causes of illnesses were not known to these people—colonial physicians had no idea what germs or bacteria were. Most of them had been taught that breathing bad air, taking cold-water baths, and drinking and eating the wrong foods at the wrong times caused illness. They believed that the body was controlled by the humors—four fluids within the body. These fluids were called black bile, yellow bile, phlegm, and blood. Whenever any one of these humors fell out of balance, a person became sick.

To restore the balance of humors in a sick person, physicians generally tried three treatments. Most often, they chose to remove "bad" blood by applying leeches (this process was known as "bloodsucking") or cutting veins ("bleeding," or "bloodletting") so it could leave the body. Physicians also gave their patients drugs. These drugs caused their patients to remove excess fluids by vomiting stomach contents, purging the intestines, urinating, or sweating. Sometimes, "blisters," or hot packs, were applied to the skin to cause blisters to form. Blistering caused blood to rush to an area, which increased the flow of oxygen and promoted healing, much like today's topical analgesics that relieve muscular aches.

Long begins experimenting with controlled doses of ether to provide "painless" surgery.

Spring, 1845

North Carolina opens a school in Raleigh to care for the deaf and mute. Soon, twenty-three students between the ages of eight and thirty are attending classes in reading, writing, arithmetic, history, geography, and domestic and industrial arts. The school will incorporate in 1852 as the North Carolina Institute for the Deaf, Dumb, and Blind.

1846–1848

During the Mexican War, Colonel Louis D. Wilson, a state senator from Edgecombe County, dies of yellow fever in Vera Cruz, Mexico.

February 9, 1848

Dr. Fabius Julius Haywood of Raleigh performs the first operation in the state to use chloroform instead of ether as an anesthetic. This operation takes place only three months after James Young Simpson, a physician in Scotland, first described chloroform as an anesthetic.

1849

Dorothea L. Dix, a crusader from Massachusetts, leads a fight to improve the treatment and care of North Carolina's "insane." The result is the opening of a state mental hospital in Raleigh in 1856.

Definitions (continued)

Obstacles are barriers that get in the way and slow or prevent progress.

Rural areas are places in the country, away from urban and metropolitan areas. Urban areas are city areas.

Stercoraries are storage places for manure, often covered pits, that are secure from weather.

Tradesmen are people who are skilled in a trade, like tanning, distilling, or blacksmithing.

In colonial times, a university was a body of teachers and scholars who gathered to teach and lead research in a particular subject. Remember, though, that teachers taught only what was known about a subject at that time.

and the beginning of a new attitude that supports better public health and welfare in the state.

1848
The Federal Drug Importation Act regulates drugs entering the United States at key ports after soldiers fighting in the Mexican War (1846-1848) die of malaria after their watered-down quinine does nothing to ease their fevers and chills.

1849
The North Carolina Medical Society is reorganized to replace an earlier society (see December 1799). Edmund Strudwick will become its first president in 1850.

1850s-1870s
Rapid population growth in cities around the world overpowers attempts to provide adequate housing, clean food and water, and proper sewage and garbage disposal. When quarantines and traditional treatments fail to stop the spread of typhus, typhoid fever, dysentery, cholera, and tuberculosis, health reformers lobby for government assistance with public hygiene and education to prevent and control future outbreaks.

1852
Solomon Sampson Satchwell (see also 1877), a Wilmington doctor, wishes for a vaccine to treat malaria. At this time, most people still believe that malaria is caused by "miasma," poisonous gases and fogs that escape from stagnant waters like swamps, millponds, and low marshes.

1856
The North Carolina Dental Society is organized in Raleigh, with W. F. Bason named as first president.

1856
The average yearly income of a doctor is about \$300. Many make extra money by selling medicines and medical supplies. Others turn to other professions, only to find them more profitable, and abandon their practices.

1858
The *Medical Journal of North Carolina* begins publication.

June 1859
Jean-Henri Dunant, a Swiss humanitarian, begins organizing a society to provide emergency aid for wounded soldiers. Eventually, this society will also aid victims of war, peacetime, and civilians in all emergencies. It will be called "la Croix-Rouge," the Red Cross.

Physicians recognized the leading killing diseases of this time as diarrhea and fevers. These diseases did not always kill by themselves, but they upset the balance of the body and weakened it by reducing its ability to fight other diseases. Even a common cold could and did cause deaths under these circumstances.

Contagious diseases such as smallpox, mumps, and measles brought fear to colonial communities. All these caused deaths during the colonial period. One in every four babies died before the age of two, and many more children died before they reached their eighth birthdays because of these diseases.

Some early settlers knew to arrange their farms so their houses would be upwind from marshes, swamps, and bodies of water that produced fog. They even thought to live upwind from "the smell of hogsties, stable manure, or any other foul or unwholesome smell" and upwind from privies. But that is because they thought disease was carried by "bad air." Noses were given to us by "Providence," or God, to warn us away from bad air. Few, if any, people of the time had concerns for dumping wastewater near wells or into ditches that ran in front of their homes if they lived in towns.

"Water vapour is the poison that makes bile . . ."

Staying healthy, and therefore keeping the humors—black bile, yellow bile, phlegm, and blood—balanced, was a primary concern of colonists and North Carolinians until well into the 1800s. An additional concern for people along the coast or near waterways (where most people lived at the time for transportation reasons) was malaria, one of many fevers that was a part of everyday life and one of the leading killing diseases of the time.

Physicians recognized that fevers developed more frequently near swamps and bodies of water. But they thought that illness arose from the water vapors in fogs and air that accompanied the stench of decaying matter, which they called "putrefaction," in those bodies of water. This "bad air" was called miasma.

The following excerpt from a Raleigh newspaper shows that these concerns influenced even where houses should be built and how outbuildings should be arranged on a property.

... Another very important matter with respect to health, is the situation of dwellings. They should always be placed, so that the southerly and westerly winds will not bring the smell of hogsties, stable manure, or any other foul or unwholesome smell into the rooms. Tenderwomen, children, sick persons, the aged and infirm are much hurt by such

Early advances in medicine

Medicines that were used in the colonial period were obtained largely from nature. They were made from flowers, roots, barks, leaves, or stems. Once gathered, these herbal remedies and preparations were refined by an apothecary, then sold. Knowledge about using those medicines was brought from Europe.



smells. Even hearty men are injured by them. Providence gave us noses to enable us to avoid breathing the unwholesome air which foul smells bring with them. . . . Let our stables, barns, barn-yards, dunghoops or sterconaries, hogsties and privies, be placed on the northerly sides of our dwellings, and not too near them. . . .

It is much more important and necessary, that our houses be placed on the southerly and south-westerly sides of mill-ponds, lakes, ponds, . . . marshes, and waters in general because the fogs and [miasmic] poisonous vapours, which rise [from these] waters will be blown from our houses by the southerly and westerly winds, and not into them. . . . Fogs . . . are drawn from houses built on the westerly and southerly sides of ponds and other waters. . . . This hint is worthy of universal and great attention. . . . Water vapour is the poison that makes bile, and brings on autumnal aches and fevers, and the worst complaints of warm seasons.

—from the *Raleigh Register*,
June 29, 1802

Colonial doctors, and people in general, believed that health and personality were controlled by four humors within the body. Each person, they thought, had a unique amount of the four humors, or body fluids—black bile, yellow bile, phlegm, and blood. Whenever any one of these humors fell out of balance, a person fell ill. One of the treatments physicians used to restore the balance of the humors was removing blood from the sick person. One way to remove blood was to use leeches, a practice called “bloodsucking.” Another way was to use medical instruments like these to “bleed” or “blood-let.”



Major imbalances of the humors were signaled by rapid pulse and fevers. If a person fell ill from a major imbalance, major arteries, most often in the arms or legs, would be severed by using fleams (the instrument with many blades to the right) or lancets (which look like knives or razors, below). Large bowls and basins were used to collect this amount of blood. Usually, the patient fainted from blood loss, but according to humoral theory, any “bad blood” had been removed so the healing process could begin.



Of the drugs used at that time, many continue to be used in one form or another. Two good examples are camphor, which is still used to assist breathing, and quinine, which relieves the symptoms of malaria. Some medicines that were used during this time appeared to have good results, but they really were not so good. Several, such as calomel, a form of mercury, and strychnine, which were given to fight illness and help with various treatments, caused physical damage to many patients. Some medicines could disfigure or even kill.

Medical professionals were making some progress, though: they were perfecting the use



The instruments used to remove small amounts of blood for correcting local imbalances, usually minor illnesses, were a scarifier (left, top view; and above, bottom view) and bleeding cups (left). The blades you see on the bottom of this scarifier would first be retracted inside. The scarifier would then be placed on the body at the site of the humoral imbalance—for example, the chest in the case of bronchitis or pneumonia. When the restraining lever on top of the scarifier was flipped, the spring-powered blades were released into the skin, making several small, shallow cuts. A bleeding cup would then be heated and placed over the cuts the scarifier had made. When placed against the skin, the hot bleeding cup created suction and drew blood to the site. If the doctor felt another bleeding cup needed to be filled, another was heated and replaced the full one. This movement of blood to and through the site was thought to correct the local imbalance and begin the healing process.



of inoculation. Inoculation involved transferring live viruses to healthy people so that they caught a mild case of an illness in a controlled environment. Once these people recovered from that bout with the illness, they seldom had to worry about catching it again. Their bodies had formed a natural immunity against the disease.

Colonial physicians could inoculate a person against smallpox. First, they found a person who had almost recovered from smallpox. They then opened one of the sores that remained on the patient and removed some pus from it. The physician would then put some of that infection under the skin of a

1860
North Carolina has 1,266 practicing doctors. Only 233 of these are members of the North Carolina Medical Society. In general, these members are graduates of formal medical schools (107 of them hold degrees from the University of Pennsylvania) who support granting licenses only to persons who pass an exam.

1860
In London, England, Florence Nightingale founds the first school dedicated to teaching nurses and introduces trained nursing as a professional career for women.

1861–1865
During America's Civil War, about 125,000 men die from battle wounds and disease. Only weeks before the war's end, as many as a thousand wounded men are carried into Greensboro, where women feed and care for them in hospitals set up in the courthouse, at Edgeworth Female Seminary, and in the First Presbyterian Church. Several medical advances come out of the war: better sanitation, nursing as a profession, wide use of anesthetics, the triage system of prioritizing injuries, and the concept of using hospitals as places to treat patients rather than places to let people die. The typical medical kit from the Civil War era contains bismuth subnitrate to treat diarrhea; chloroform, a form of chloroform, an anesthetic; ipecac and strychnine to treat dysentery; and an assortment of painkillers—opium, morphine, and whiskey. Quinine is the “wonder drug” of the day. It is used for treatment and prevention of malaria and treatment of typhoid, rheumatism, and diarrhea.

1862
President Abraham Lincoln appoints a chemist to the Department of Agriculture to form the Bureau of Chemistry, which will become the Food and Drug Administration.

April 1865
Laura Wesson and her father travel from Virginia to visit her fiancé, who is stationed at an army camp. During a train stop in High Point, Laura volunteers to help care for wounded men at a Confederate hospital in the Barber Hotel. Unfortunately, many of the men have fallen ill with smallpox. Laura, too, catches the disease and is quarantined.

in the "pest house," where she dies at the age of twenty.

August 17, 1867
Concerned about sanitation, the commissioners of High Point pass an ordinance that makes unattended carcasses, filthy privies, and stagnant pools of water illegal on private lots.

1871
The Davis Hotel opens in Kinston, Vance County. It will be known as the "Glas House," a popular health resort for northern hunters and tuberculosis patients. The building will burn in 1893.

1872
Dr. Susan Dimock becomes the first woman member of the North Carolina Medical Society. American doctors had so strongly opposed her study of medicine that she was forced to move to Switzerland for her schooling. Ironically, even after returning to the United States, Dimock will never practice in North Carolina.

1877
The state Board of Health is created with a budget of \$100. This small budget severely limits the board's influence and activities. The board's first president is Solomon Sampson Satchwell (see also 1852), one of the founders of the new North Carolina Medical Society in 1849 and a pioneer in promoting fresh air and sunshine, personal cleanliness, diet, and a minimum of drugs to improve public health. (see also 1909)

Michael R. Williams has been a surgeon from the 1700s since 1984. His reenactments take place at historic sites up and down the east coast. Locally, he reenacts at the Alamance Battlefield State Historic Site near Burlington.

The amputation drawings are from the *Manual of Military Surgery*, for the Use of Surgeons in the Confederate States Army, published in 1864. Photographs of the bleeding instruments on page 11 and the home doctoring kit are from the North Carolina Museum of History. All other artwork is from the North Carolina Division of Archives and History.

healthy person. This act gave the healthy person a mild case of the disease so that he or she gained lifelong immunity. This practice worked surprisingly well. In fact, more than two hundred years later, doctors still use inoculations to protect us from diseases like measles, mumps, and chicken pox.

The lesser of two evils

Surgery was practiced fairly frequently during this time. It was called the "brutal craft"—and for good reason. Four major obstacles battled its success. First, in the 1700s, no way was known for putting a patient to sleep during surgery or even for numbing the area where surgery was to be performed. Second, no one knew how to replace blood that might be lost from the patient. Third, medical practitioners did not understand the ideas of cleanliness, sanitation, and sterilization—they did not clean the areas they were operating on, the tools they used, or their own hands before surgery or even between surgeries. And fourth, colonial medical professionals were just beginning to learn about the inner workings of the body—not all doctors knew where all the organs were located in a body, and fewer knew what some of the organs did.

Yet, surgeries still took place. The most frequent type of surgery was probably amputation. Surgeons performed amputations whenever parts of the body became so infected that a patient's life was in danger. In addition, amputations were nearly always done when a gunshot wound had damaged a bone or when a patient had suffered a bad fracture of an arm or leg.

Because surgeons had no anesthetics to numb local areas or any ability to put a patient

"Home doctoring kits" like this one from Rutherford County were commonly used from colonial times into the 1800s. Kits frequently contained (clockwise from the storage box) vials of ipecac and calomel (for rebalancing the humors), a suturing needle and thread, lancets (and a carrying case), pewter syringes (one for enemas and one for ear and throat use), and medicinal gowns (possibly for carrying local healing herbs). Items from this kit were used to care for family members, pets, and livestock for three generations.

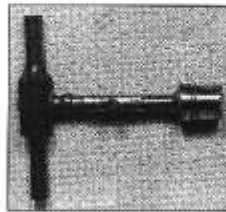


to sleep before operating, the patient's pain was agonizing. Surgeons knew this, so they attempted to perform operations as quickly as they could. Typically, an amputation of a leg or an arm took three to five minutes from the first cut until it hit the sawdust on the floor. Some records show that surgeons worked so fast that they accidentally cut fingers of their apprentices and assistants.

As crude as these techniques were, they still saved lives. Imagine that a person had suffered a musket wound to a leg and that the impact of the ball had broken the bone. If the injured man could find a surgeon within twenty-four hours after receiving the injury, he had a good chance of surviving after an operation. Why? First, because the operation (as unsanitary as it was) was cleaner than the wound, and second, because the surgeon could more easily stop bleeding by applying tourniquets and cauterizing veins after an operation.



Major obstacles to surgeries did not prevent them from taking place during colonial times. The most frequent type of surgery was probably amputation. These illustrations (left) show the techniques that were used in colonial times. Trepanations were also common surgeries in colonial times. During a trepanation, tools called trephines (above) were used to make circular openings in the skull. These openings released pressure and allowed blood to escape after head injuries, probably easing concussions and preventing comas. The survival rate for this operation was about 50 percent.





ACTIVITY: OUCH! PRICK YOUR FINGER!

By Marianne Wason

Can you identify these items?

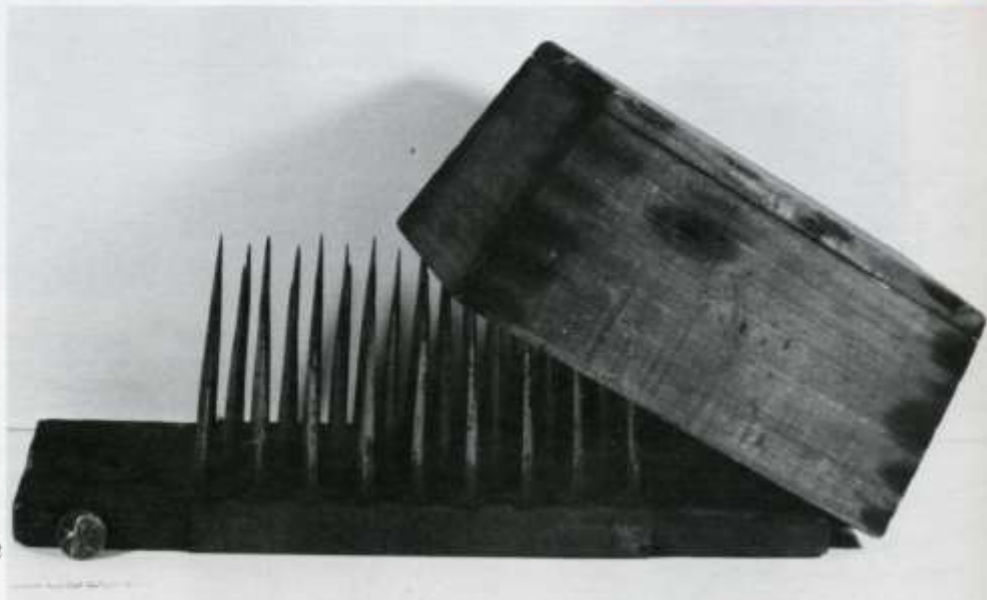
All ten deal with textiles:

- Preparing fibers for spinning (two items)
- Making woven items (two items)
- Sewing (five items)
- Shaping a fabric (one item)

Think hard . . . use the clues . . . good luck!

This device will "raise your hackles,"
But I don't mean "get you mad."
You'd use this fearsome object

- To comb the fibers of flax.
- To brush the fleece of lambs.
- To scrub a floor of mats.
- To rid a rug of gnats.



32



Just a silver peanut
Holding a bit of wax—
What's it for in sewing?
Is the question you may ask.

- To make your fingers softer?
- To make your loose thread stronger?
- To mend a minor rip?
- To soften needle tips?

For use by fingers that are nimble
This silver acorn hides a —————.



A pair of cards, for wool or cotton;
What do you think they do?
To find the answer turn to page
Sixteen and twenty-two!

From Wachovia in Salem
Comes this colonial treasure
To fashion cloth in narrow strips
Too numerous to measure:

What's its name?

Mini-weaver ■

Insta-cloth ■

Tape loom ■

Fabric Man ■



Back and forth with metal points
To push the fibers through;
What does this sliding tool produce?
A quilt? A rug? A shoe?

A "darning egg"—what could it be?
It can't pull thread or hold a quilt
Or comb out flax or spin some silk
Or fix a rip
Or knit a stitch—
So what's this basswood tool to do?
IT KEEPS ITS SHAPE—and that's the clue.
Now look up "dam" before you choose
Which one of these seems right to you:

A darning egg is a tool to use
In worn-down shoes—to pound the soles. ■
In worn-out socks—to mend the holes. ■
In brand-new gloves—to stretch them out. ■
In bulky clothes—to stomp them down. ■

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In this age of cordless telephones
and portable computers,
Walkmen, beepers, videocams,
and mini copy machines,
We also have the ultimate
invention for a quilter:

The supermodern mini lightweight

H_____ S_____ M_____

Is this
A beater—for cotton and stiff wool and flax? ■
A heater—for needles and bobbins and tacks? ■
A creaser—for collars and draperies and slacks? ■
A pleater—for ruffles and edges and hats? ■



A sewing box—levels one through four:
Its bottom level is a drawer;
And so's its third, for storing more;
And level two, for spools of t_____;
And level one, to stick in pin_____.

Answers:
■ To comb flax fibers (flax hackle)
■ To make (flax) stronger (thread wax)
■ Thimble
■ "Card" in fabric on pages 16 and 22
■ Tape loom
■ A rug (rug hook)
■ Mended the holes in worn-out socks
■ Handbed sewing machine
■ A pleater (fluting iron)
■ Thread/beads

Postprogram Activities: Colonial Reading and Writing

Directions for Making Ink, Sander, and Hornbook

Historical overview

Few schools existed in North Carolina during the colonial period. Most children were educated at home by their parents or a sibling. Wealthy landowners sometimes hired tutors for their children. Boys generally studied academic subjects, and girls learned enough reading, writing, and arithmetic to manage domestic duties. Enslaved African Americans received little or no education. Some slaveholders prohibited the education of their slaves; others taught their slaves to read the Bible. Moravians stressed the importance of education. Girls and boys were taught in separate classes beginning at age six. The Cherokee had no formal system of education. Cherokee children learned skills from elders in their communities.

Time

Two or three forty-five-minute sessions

Materials

For ink

- walnut shells
- saucepan
- hot plate
- water
- salt
- vinegar
- cheesecloth
- glass jar
- small cups
- paint shirts

For quills

- turkey feathers (available at craft stores) or sharpened sticks

For sander

- cheese sprinkler
- sand

For hornbook

- tagboard (7½" x 11")
- blank or lined paper (5" x 6")
- clear transparency film or plastic wrap
- construction paper or ribbon
- masking tape
- glue

Vocabulary

Hornbook. European settlers used a hornbook to teach the alphabet and reading to children. It was not really a book, but a thin piece of wood with a handle. A lesson sheet covered the wood. Printed on the sheet were the alphabet, simple syllable combinations, and a verse or prayer. The paper was covered with a thin transparent sheet made from the horn of a bull.

Procedure

Talk it over

- Brainstorm with students and make a list of materials we use today for writing and reading.
- Lead discussion with students about what children in colonial times might have used for reading and writing. Show them the picture of the hornbook. Discuss how the hornbook might have been used for teaching children to read and write. Talk about making ink and using feathers for writing.
- Compare the list of modern materials with the materials used by colonists.

Make homemade ink

△ CAUTION: This is a dye and will stain permanently. Students should wear protective clothing such as a paint shirt.

- Crush walnut shells into very small pieces.
- Put the crushed shells into the saucepan, cover with water, bring to a boil, and simmer until the liquid is dark brown.
- Sprinkle one teaspoon of salt and two to three tablespoons of vinegar into the liquid to set the dye.
- Strain the liquid through the cheesecloth into the glass jar. Allow the ink to cool.
- Pour the strained ink into small cups for each student or for pairs of students to share.

Make a sander

- Fill a clean cheese sprinkler with dry, clean sand.

Make a hornbook

- Cut a hornbook in the shape of a paddle (8½" x 7½") with a handle (2½" x ½") out of the tagboard.
- Use a quill and ink to write the following on a sheet of paper (5" x 6"):
the alphabet in uppercase and lowercase letters
a set of two-letter syllables
a verse, rhyme, or sentence
- Sprinkle sand over the wet ink and wait until the ink is dry.
- Shake the excess sand off the paper.

NOTE: Students can write using the homemade ink and quills, but will need to practice before making the final copy for their hornbooks.

- Glue the finished paper to the center of the paddle.
- Cut a piece of transparency film or plastic wrap (5½" x 6½").
- Cut construction paper or ribbon into strips. Two strips will be ½" x 7 ½" and two strips will be ½" x 6½".
- Tape the transparency film or plastic wrap over the paper. Glue the border of the construction paper or ribbon around the edge of the transparency film or plastic wrap.

Museum detectives use solid evidence

By Wesley S. Creel

People have always made and used things in their lives. Those things may be as simple as a pin or a bow and arrow or as complex as a car or the space shuttle. History detectives who study them can tell the history of people, places, or events by looking at these things and understanding how and why they were used. They call these old objects artifacts, and the study of these objects and the people who used them they call **material culture**.

How do you think museum detectives can tell about the history of people through their artifacts? Think about what it would be like if you found something on the ground you had never seen before. How would you find out what it is? You might ask your friends, your parents, or your teachers. You might look it up in a book. It would take some time, but you probably could find information about it. These history detectives do the same thing.

The first step that museum detectives take in investigating artifacts is called description. This step has two parts. During the first part, museum registrars measure the artifact.

Using rulers they measure width, height, and length. Then they turn the artifacts over to curators for the second part of description.

Curators and their assistants, called catalogers, look at the artifact very carefully and closely to describe what it is made of and how they think it was made. Sometimes they cannot tell much about an object by looking at it. So, they must talk to someone who used it or made it or someone who is an expert in this kind of artifact. They may even look for other things like it in reference books.

Curators and catalogers also do historical research. It might include information from secondary sources like county histories or primary sources like census reports, oral history interviews, or personal papers. This research explains why an artifact is historically important and how it fits into a society or a culture.

During this part they ask questions and try to find answers: how is this artifact different from any other artifact? How is it similar? How does it fit into the area or the time period? But one of the most important questions they ask is: what was it originally used for?



This basket was found along with other artifacts in Polk County. Museum detectives describe, document, classify, and interpret objects like this so that we can learn more about ourselves and North Carolina history.

Now the curators begin the second step called documentation and classification. In documentation, they want to know more about the artifact: how it was made, how it was used, why one material was used instead of another, why it was designed the way it was, why it was made and used, who used it, how they used it, and when they used it.

Based on their research investigation and answers to these questions in documentation, museum curators and their assistants try to place the artifact they are investigating into a category. This is called classification. You may want to think of categories in this way. There are different kinds of clothes: socks, shoes, shirts, pants, underclothes, sweaters, and coats. These are categories—or classes—of clothes and they are grouped by their different uses—what they were originally used for. So museum curators use a similar system to classify artifacts according to

what they were originally used for.

The third step—called interpretation—is conducted by many different people in the museum who use information from the curator's investigation. The museum curators and catalogers write scholarly articles and books or give lectures. They also provide information about artifacts to exhibit designers who will create exhibits and educators who will create educational programs. Museum educators produce audiovisual programs, arrange demonstrations, produce publications, and give tours and talks.

We have described how museum detectives—registrars, curators, catalogers, exhibit designers, and educators—study material culture and explain it to visitors. Now we are going to provide an artifact example so that you can investigate it with us. Recently, museum detectives went to the Jackson family farm near Tryon in Polk County to investigate and pick

up a large collection of artifacts. The Jackson family owned hundreds of things they had used on their farm from the 1850s to the 1920s, including farm tools and equipment, furniture, clothing, kitchen utensils, quilts and coverlets, and weapons.

During their work, one artifact stood out: a wooden basket. Let's go through the description, documentation and classification, and interpretation processes for this basket.

The registrars begin the description process. The basket measures 14 1/4 inches high, 17 5/8 inches long, and 16 inches wide. The curators and catalogers now take a closer look. The handle and the rods—long, thin, young branches of wood—are made of oak, with metal wire to replace broken or missing ones. It was made by hand by taking the rods and weaving them together.

Curators and catalogers begin the next step, documentation and classification. Documentation is first. They



In description, museum registrars measure the basket and describe its appearance.

compare this basket to other baskets they have seen in the museum, in other museums, or in reference books. They discover that metal buckets, tin cans, glass jars, and other machine-made containers were rare on a farm in the piedmont foothills in the 1800s. Baskets were among the most common containers during this period. They could have been made from local and inexpensive materials, and often they were made by family members or by neighbors. Baskets were used to carry laundry, to carry vegetables from the garden to the house, or to carry wood from the woodshed for heating and cooking stoves.

Comparing this basket to other baskets of different shapes and sizes, detectives think it was used to carry eggs. And they think that it was used during the late 1800s and early 1900s in this area. And being made of oak

splints, it was made of the same materials as other baskets during this time.

Now the curators and catalogers have questions about the people who made and used the basket. For instance, were the eggs collected by the family for the family? Were they collected to sell for cash? Or were they collected for both? Which person in the family used the basket to collect eggs? Was collecting eggs a job for an adult or a child? Was it a job for a grandparent or a parent? Did a man or woman collect the eggs? If a child collected the eggs, was it the oldest or the youngest? Was it a boy or girl?

Sometimes they ask questions that have no answers and have to guess. Why did the owners keep the basket when it was in such bad shape? Why did the owner of the basket keep repairing it and using it? These are

some of the answers they came up with. Perhaps it was in bad shape and the eggs could have fallen out. Perhaps the family was poor and it was the only basket. Maybe the family placed a high value on saving money by using something over and over again for a long time. Maybe it was a "good luck" egg basket. Maybe the basket meant something special to its owner.

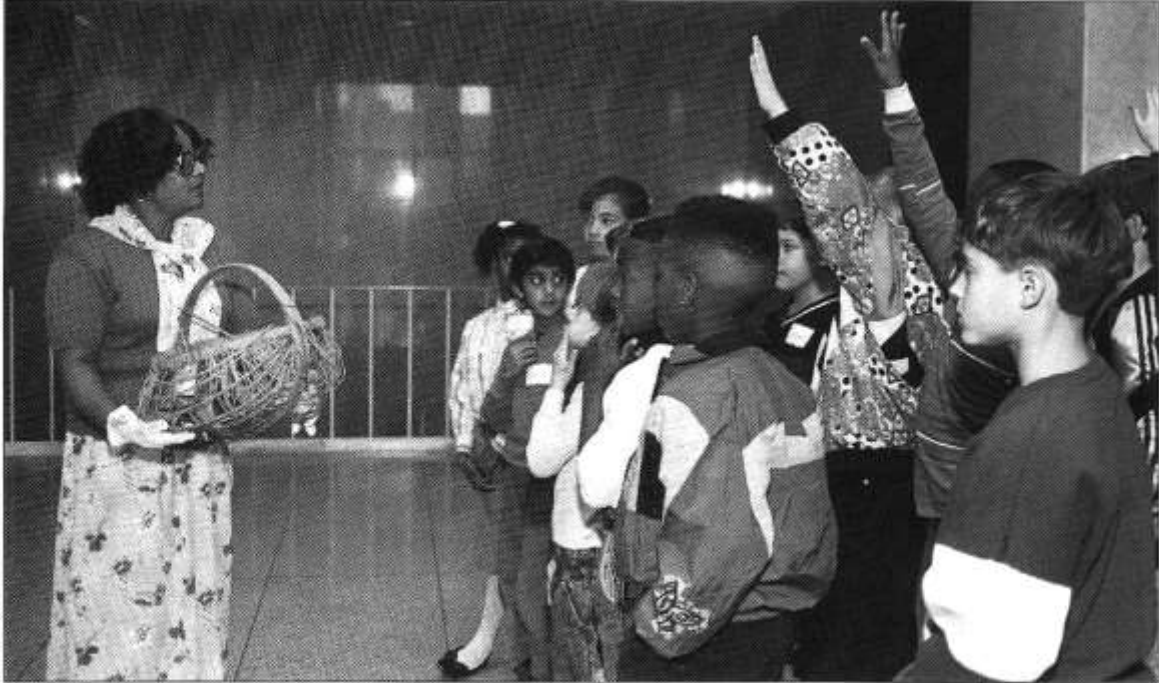
Now they look the basket up in a special museum book to see how it fits in different classes of similar or different baskets. This way of classifying is used not only in this museum but in other museums throughout the world. The basket fits into the large class of objects called "Tools and equipment." Within that class it fits in the "Agricultural tools and equipment" class and then into a smaller one called "Baskets, gathering."

The museum curators and educa-



In documentation and classification, museum curators and catalogers try to understand how this basket is like and unlike other baskets. To do this, they read books and compare this basket to other baskets in the museum. They use this information to understand the hows, wheres, and whys of North Carolina history.

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After description, documentation, and classification, this museum educator explains to visitors the importance of the basket in the lives of farm families living in piedmont North Carolina in the late 1880s and early 1900s.

tors work together to tell the story of the basket for people who visit the museum. The curators provide educators with their historical research and their description, documentation, and classification information.

Educators use this information to develop interpretive programs and publications, including touch talks, slide programs, and gallery tours. The purpose of the N.C. Museum of History is to "interpret the culture and social, economic, and political history of North Carolina from prehistory to

the present; and to collect, preserve, and utilize artifacts and other material significant to the state." So curators and educators must use the basket to tell North Carolinians about some part of their history.

This basket is solid evidence of a group of people who lived and worked on a piedmont farm not too long ago. Museum detectives will use this evidence to explain about North Carolina history.

You can start your own investigation about your material culture. You

can start in your house. Do you have any artifacts like egg baskets? Do you have any objects that you use, like an egg basket, to gather food? Is there an object in your house that you would like to know about? What kind of artifacts do you or your parents own that they use in the kitchen? What does that artifact tell you about you? Your family? Your house, your county, your state? What does that artifact tell you about your material culture? You may end up with more questions than answers. □

Definition

Material culture is all the objects or tools—artifacts—and the group of people who use them. Museum detectives who study material culture are interested in finding out about how, where, when, and why people use artifacts. They are also interested in

- people dealing with their natural environment (when, how, and where they make shelter, get food, protect themselves from the weather—heat, cold, sun, rain, wind)

- people relating to other people (when they show wealth or status by wearing expensive clothes or work clothes; wearing lots of gold jewelry; driving big expensive cars, small foreign cars, family vans, or four-wheel drive vehicles)
- people expressing their thoughts and ideas (when they speak, create art, or worship)

Oral historians listen to witnesses

by Anne R. Phillips

I met Nevada Jane Hall in 1986 when she was ninety-eight years old. She lived alone in a two-story, white frame house off Lynchburg Road on the western edge of Stokes County. "Moved from over yonder in Surry County, lived in a log house over there, two little rooms," she remembers. Her family moved to the Stokes County house in 1891. Nevada Jane, called Miss Vadie,

was three years old at the time and sat on top of a wagon load of corn pulled by two borrowed white horses.

Yet life was still tough after she moved with her family: "Traded him [an old horse] for a pair of old mules. How in the world with three children—wasn't one of them big enough to work how they lived. No openings to plant a garden nor nothing. I'll tell you, though, Mama saved



Nevada Jane Hall, Miss Vadie, remembers moving from Surry County to this house in Stokes County in 1891. In oral history interviews, she tells her family history. If this history of her family is similar to many farm families in the piedmont in the early 1900s, how could her oral history help history detectives?





*Miss Vadie as a young woman (on the right)
with one of her sisters.*

everything. They had to or couldn't have lived."

History detectives often use oral history from people like Miss Vadie to capture personal information. Sometimes this information cannot be found in other primary sources like diaries and letters. People being interviewed by oral historians are like witnesses. Historians carry on conversations with them, explore new directions, follow up points, or ask more about something they find important or interesting. The witnesses can explain thoughts and feelings. For example, Miss Vadie was amazed that her mother could provide clothes for the family with as little as they had: "How she dressed those children, I don't know. She had an aunt that had an old loom, and she'd make cloth so we had wool clothes to wear through the winter. When we got up big enough, they taught us how to knit. With a kerosene lamp, little bitty cookstove, Becky, Mama, and me would set there and knit every night. Figuring about two pair of stockings apiece, and they would last all winter. If the legs was good, next winter ravel them off and knit down below, and they would go another year."

Oral history also fills in gaps left unsaid by other sources. Some history books tell us facts and explain ideas, but they sometimes do not give us details about people or how

they felt. Miss Vadie tells that she liked outdoor work. We rarely find this sort of information in books: "I always wished I'd been a man; all I wanted to do was to get out in the fields. Mother did all the cooking. I'd take some twine and I'd knit some mittens; leave your fingers out. Fit them to use your hoe, so your hands would stay white. Long sleeves. I never did burn my skin. We'd plant corn. We'd take a gooseneck hoe. Follow that plow every row."

How does the oral historian study history? The oral historian gathers history by interviewing someone—asking questions. The oral historian points them in a direction or train of thought and listens to the answer and records it on tape. These are often descriptions about themselves, family, community, and events. When Miss Vadie and I talked about tobacco harvesting, I wanted to know more details about selling tobacco. I asked a question and this is what she told me: "After the family primed tobacco . . . they got it cured out, we'd take all the leaves off them stalks, grade it, then tie it up in a bundle. You had to tie it nice. That ain't half of it. Tie that over, and then put it on a two-horse wagon. Drive to Winston-Salem on a dirt road and be gone for three days to sell tobacco."

The first oral history interviews I did were with my own family. I wanted to know, for instance, about



Miss Vadie at a recent birthday party.

my mother's life as a teacher and her own mother's life as a teacher in rural Mecklenburg County, Virginia. So I asked Mama the questions I wanted to know most. What was her mother like? Did Grandmother and Grandfather write letters to each other when they were courting? How did Mama feel when her own mother died when Mama was only eight years old? Why did Mama decide to study music? Only by asking Mama these questions could I find answers. I am grateful that she allowed me to tape-record our conversations.

So when I interviewed Miss Vadie, I asked her some of the questions I had asked Mama. What was Miss Vadie's mother like? Her father? In Miss Vadie's family, who liked to cook? Who built the fires in the woodstove? Did Miss Vadie's mother work in the fields with the crops?

Did her sisters prefer work in the fields or in the house? Some information I gleaned by direct questions to Miss Vadie. Other information she volunteered without my questioning.

The way Miss Vadie told information as well as *what* she told was important. We do not have that kind of richness when we read letters or books and cannot hear the tone of voice. So the way Miss Vadie looked or spoke, the way she laughed or raised her eyebrows, added more to the story.

To be a good oral historian, you must establish rapport—a sense of trust. Sometimes a neighbor or friend of someone you want to interview must introduce you to that person. In my case, with Miss Vadie, the county librarian suggested that I talk to her: "But she may not let you in." I was hoping Miss Vadie would

have good information, but I would have to respect her feelings, or she might not let me in the door at all. When I knocked, she let me in. I told her I wanted to know more about farm women and asked if we could talk. From that moment on, we not only shared information and trusted each other but also became good friends.

It is a good idea to request permission in writing to interview. This protects you and the interviewee from misunderstandings. Some interview forms give the interviewer permission to tape-record or permission to donate the tape to a school or county library.

In interviewing, the oral historian should follow these suggestions:

- Go on the interview by yourself.
- Interview only one person at a time.
- If the television is on when you arrive, visit a little bit and then ask permission to turn it off during the interview.
- Remember that background noises may be a distraction on the tape.
- When you are finished, label the tape with your name, the interviewee's name, the date, and the place.

Miss Vadie's life is her story. Her accounts of her thoughts and feelings give a picture of her life growing up on a farm in the northwestern piedmont of North Carolina. Her story helps the student of history to learn more than what can be found in history books, more about individual lives. It also helps to place those lives in the larger picture of North Carolina history.

How was Nevada Jane Hall's life similar to stories you have heard from your aunts and uncles, parents and grandparents? How would your grandparents describe their childhoods? If you would like to know, ask them. They might have a story for you. □

Contact Information

We hope that you have enjoyed taking part in this distance learning program. We invite your comments and questions. Please take advantage of other distance learning programs offered by the North Carolina Museum of History, including History-in-a-Box kits, videos on demand, educator notebooks, and the Tar Heel Junior Historian Association, as well as professional development opportunities for educators. For more information, visit <http://www.ncmuseumofhistory.org/edu/Classroom.html>.

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